The Assessment of Treatment Related Issues and Risk in Sexual Offenders and Abusers with Intellectual Disability

William R Lindsay [1*]

John L Taylor [2]

1. The State Hospital; NHS Tayside and University of Abertay, Dundee
2. Northumberland, Tyne & Wear NHS Trust and Northumbria University

In A. Beech, L. Craig & K. Browne (Eds.) (2009),

Assessment and treatment of sex offenders: A handbook,

pp. 217-235. Chichester, Wiley

Addresses:

Prof. Bill Lindsay, Clinical Psychology Department, Wedderburn House, 1 Edward Street, Dundee, Scotland DD1 5NS, UK.

Prof. John Taylor, Northgate Hospital, Morpeth, Northumberland, England, UK.

The Assessment of Treatment Related Issues and Risk in Sexual Offenders and Abusers with Intellectual Disability

Although lagging behind the significant developments which have been seen in mainstream offenders, there have been considerable developments over the last 15 years in work with offenders with intellectual disability (ID) in general and specifically sex offenders. At the outset, we must recognise the problem of definition in the population. Within the field, it is reasonably well established (e.g. see Holland 2004) that a number of factors influence the way clients are defined within the population. The way in which these factors come to bear, may influence local referral rates (prevalence rates) significantly.

The first issue relates to the definition of the population itself. Both Holland (2004) & Lindsay (2002) have noted that several men with ID who engage in an incident or incidents of inappropriate sexual behaviour are not brought to the attention of the Criminal Justice System. It may be felt by carers and those around the individual that it is not appropriate to involve the police following the perpetration of the incident. Reasons might include the fact that individuals involved consider that the perpetrator does not have *mens rea* and as a result cannot be held responsible since he cannot understand the laws and regulations of society. There may be a number of other reasons why such incidents are not brought to the attention of the authorities such as the fact that those around the individual may agree that it is not in the interests of the victim or the establishment to make such an incident public and a decision is made to deal with it internally. Therefore, this chapter is entitled 'Sexual Offenders and Abusers' to include this class of men.

A second, more technical issue with definition is that of the means of measuring IQ and inclusion criteria. As for the latter, most forensic services (and therefore studies which target these services in their research question) would not include individuals who lack *mens*

rea. Therefore, generally those individuals with a moderate intellectual disability, IQ < around 50, would not be included. However, Noble & Conley (1992), in their review with people with ID in the penal system in the US, reported some surveys finding individuals with an IQ as low as 25. There are no recent detailed studies of this nature but it does seem astonishing to include anyone in the forensic services who is likely to have such a poor understanding of the illegal nature of an incident that they have perpetrated. At the other end of the range of ID, some services will have a very strict cut-off of IQ 70, while others will include one or two standard errors (up to IQ 75). This makes a considerable difference in terms of numbers included in the study since these four extra IQ points constitutes around 1% of the population.

A second issue in relation to inclusion is the type of assessment used by the study or by the service being studied. The essential point of note is whether or not full intellectual assessment is used, such as the Wechsler Adult Intelligence Scale – Third Edition ^{UK} (WAIS III ^{UK}), or an IQ screening. The Quick Test has been mentioned in previous reports and is the assessment most frequently mentioned by Noble & Conley (1992) in their review with people with ID and the penal system. They note that the Quick Test is a screening method that consistently over-estimates the number of individuals in the lower IQ categories and, as a result, they do not recommend it for use. However, the police are increasingly obliged to provide special assistance to vulnerable suspects during interview and initial detention. Therefore Hayes (2002) has argued that ID should be identified as early as possible in the criminal justice process and has developed the Hayes Ability Screening Index (HASI: Hayes 2000) in an attempt to address the issue of early identification of the presence of ID. However, the HASI includes around one in five participants as a false positive with no false negatives and is therefore likely to over-include individuals without ID at a rate of about 20%. The author herself stresses that the HASI should always be followed by detailed

diagnostic assessment using appropriate IQ and adaptive behaviour tests. The previous paragraphs illustrate the extent to which one must take care with assessment in this field, even prior to assessing offence-related issues, and the importance of ensuring that assessments employed are sensitive to the comprehension levels of the individual being assessed.

Risk Assessment in Sexual Offenders with ID

Static Risk Assessment

There have been considerable developments in the identification of risk factors for future offending with the corresponding development of risk assessments of increasing accuracy (see chapters 3 and 4 of this volume). Until recently, these developments had not spread to the field of ID. Lindsay, Elliot & Astell (2004) conducted a study to review the predictive potential of a range of previously identified variables and assessed their relationship with recidivism. They employed 52 male sex offenders who had an average IQ of 64.3 (range: 56/75 IQ points); at least one year had elapsed since conviction for the index offence; the mean period of discharge was 3.3 years. It included 15 static/historical variables and 35 proximal/dynamic variables, all of which had either been identified in previous research or added on the basis of clinical experience. The significant variables to emerge from the regression models included anti-social attitude, poor relationship with mother, low self esteem, lack of assertiveness, poor response to treatment, offences involving physical violence, staff complacency, an attitude tolerant of sexual crimes, low treatment motivation, erratic attendance and unexplained breaks from routine, deterioration of family attitudes, unplanned discharge and poor response to treatment. While most readers of this chapter will be unsurprised by these emerging variables, what was most notable in the study were the variables not associated with recidivism. Although employment history, criminal lifestyle, criminal companions (anti-social influences), diverse sexual crimes and deviant victim choice

have been highly associated with recidivism in studies on mainstream offenders, they did not emerge from this study. Perhaps this points to the way in which those of us working in this field should adjust our perceptions. For example, very few individuals with ID have an employment history reflected in the fact that this does not emerge as a significant variable. However, individuals often have alternative regimes of special educational placements, occupational placements and the like which serve to make up the weekly regime. Non-compliance with this regime did emerge as a significant variable suggesting that individuals with ID should be judged in relation to their peers. This in turn suggests that the individual working with that offender should have a basic grasp of the general cultural context of people with ID. For example, we have known of probation officers, used to mainstream offenders and their employment histories, who have excused non-attendance of an ID offender at their occupational placement saying "it sounds really boring – I wouldn't enjoy it either". Alternatively, they may make allowances for the ID offender on the basis of their disability with statements like "you can't really expect too much of him given his handicap". On the basis of the research, and our experience, this is precisely the wrong thing to do. Lindsay (2005) has written of the theoretical and practical importance of engaging offenders with ID with society in the form of interpersonal contacts, occupational placements and so on. This emerges as a clear risk factor which has important ramifications for management of the offender.

In a specific test of clinical and actuarial prediction, McMillan, Hastings & Coldwell (2004) compared methods for the prediction of physical violence in a forensic ID sample. They studied 124 individuals over a one-year follow-up period and found that static/actuarial methods resulted in medium to high effect sizes for prediction (Roc auc 0.77). They also found predictive values significantly above chance for structured clinical risk assessments. Therefore these authors found that it was possible to make reasonable predictions of who was

at risk for violence in forensic populations with ID. Although this study was on violence rather than sexual offences, it serves as a specific illustration of the predictive value of static variables.

The first evaluation of a standard risk assessment when it is applied to individuals with ID was conducted by Quinsey, Book & Skilling (2004) with the Violence Risk Appraisal Guide (VRAG). They carried out a 16-month follow-up of 58 clients of whom 67% exhibited anti-social behaviour and 47% exhibited a violent or sexual misbehaviour. They found that the VRAG showed significant predictive value with a medium effect size. They also showed that monthly staff ratings of client behaviour were significantly related to anti-social incidents. One of the interesting developments in this study was that they substituted the Psychopathy Checklist – Revised (PCL-R, Hare 1991), a very technical item on the VRAG, with the Child And Adolescent Taxon (CAT) which is a much simpler measure of anti-sociality. Quinsey et al (2005), in their revision of the VRAG, have found that the CAT can substitute the PCLR with no significant reduction in accuracy. They concluded that the VRAG was a reasonably accurate estimate of long-term risk in this client group.

There is one previous report in which actuarial risk assessment is used with sex offenders with ID. However, although Harris & Tough (2004) report that they have found the measures to predict reasonably well in their population, they do not present the data. Rather, they employ the RRASOR (Hanson 1997) as a means of allocating 81 sex offenders with ID into their services. By accepting referrals of only low or medium risk, as judged by the RRASOR, they argue that they can target limited resources at an appropriate group.

Over the last 10 years, several groups of researchers have compared the predictive accuracy of different risk assessment instruments on a range of databases containing actuarial information on offenders (Barbaree et al 2001, Sjostedt & Langstorm 2002, Bartosh et al

2003). For example, Harris et al (2003) compared the VRAG, its companion assessment for sex offenders, the Sex Offender Risk Appraisal Guide (SORAG; Quinsey et al 1998), the RASSOR and the Static-99 (Hanson & Thornton 1999) in the prediction of recidivism for 396 sex offenders in Canada. All four instruments predicted recidivism with significantly greater accuracy than chance. Prediction of violent recidivism was considerably higher for the VRAG and SORAG with effect sizes large for violent recidivism and moderate for sexual recidivism.

Lindsay et al (2006a) has recently made the first such comparison of actuarial risk assessments with a mixed group of 212 violent and sexual offenders with ID. Seventy three participants in their sample were drawn from high secure services, 70 from medium/low secure services and 69 from a community forensic service. They employed the VRAG, which assesses risk for violent incidents, the Static-99, which assesses risk for sexual incidents and the RM-2000 (Thornton et al 2003) which has sections for assessing risk for violence (RM-2000/V) and risk for sexual incidents (RM-2000/S). Following-up participants for one year, they found that the VRAG was a reasonable predictor for future violent incidents with a medium effect (auc = 0.72), Static-99 was a reasonable predictor for future sexual incidents with a medium effect size (auc = 0.71) and the RM-2000/V (auc = 0.61) and the RM-2000/S (auc = 0.62) predicted somewhat less well with small effect sizes. The authors wrote that the findings on the RM-2000 should not discourage future research since because it is relatively simple to use, it has the potential for considerable utility if it can be found to have similar predictive ability to other risk assessments. However, this study does give further validation to both the VRAG and Static-99 which have had endorsement from the results of several studies and researchers across cultures and countries. Lindsay et al (2006) also compared the three separate cohorts using these risk assessments and found that the VRAG and combined RM-2000 scores (RM-2000/C) showed an orderly pattern among

the groups with the high secure participants having higher scores than the medium secure participants who in turn had higher scores and the low secure participants. The trend was more notable on the VRAG than the RM-2000/C. Interestingly, there were similar numbers of sex offenders across all three groups and this was reflected in the lack of difference between the groups on the Static-99.

Although there are not many studies on which to base a conclusion about Static/Actuarial Risk Assessment, these studies do provide some encouragement on the applicability of these assessments to offenders with ID. There are now two independent evaluations of the VRAG and the one which was not conducted by the authors of the assessment found a marginally higher predictive value. One study has found medium effect sizes for the predictive value of the Static-99 while another report has used its predecessor, the RRASOR. Although the effect sizes on prediction were smaller, the RM-2000/C did discriminate between groups of high secure, medium/low secure and community offenders. Because of its ease of use and potential utility, it warrants further study.

Assessment of Personality Disorder

Assessment of personality disorder (PD) will be discussed in this chapter because aspects of PD have been linked strongly with offending and recidivism in mainstream populations. The crucial finding is that certain PDs and especially anti-social PD is a reasonable predictor of future aggression and is significantly more prevalent among inmates of correctional settings (Fazel & Danesh 2002). In addition, psychopathy as measured by the psychopathy checklist – revised (PCL-R: Hare 1991) is related to certain PDs, including anti-social PD, and also successfully predicts future aggression in a range of populations of criminals (Grettan et al 2001, Hill et al 2004). A final important finding is that anti-social PD and the PCLR makes significant contributions to the prediction of recidivism in a range of offences (Harris et al 2003). Therefore, from a number of points of view, research on PD has

been shown to produce extremely important findings in relation to the planning and development of services and treatment.

There has been a slow but steady flow of research on ID and PD from early idiosyncratic writings to recent more systematic investigations (see Lindsay 2006 for a review). Alexander & Cooray (2003), in their review of the field, comment on the lack of diagnostic instruments, the difference between classificatory systems (ICD-10 and DSM-IV), confusion of definition and personality theory and the difficulties of distinguishing personality disorder from other problems integral to ID eg. communication problems, sensory disorders and developmental delay. They conclude "the variation of the co-occurrence of personality disorder in (*intellectual disability*) with prevalence rates ranging from 1% to 91% …. is too large to be explained by real differences" (ps 28). They recommend tighter diagnostic criteria, greater use of behavioural observation and increased use of informant information. Naik, Gangadajran & Alexander (2002) held these cautions in mind when they conducted a study of 230 outpatients with ID in which they found a prevalence rate of PD of 7%. Of those individuals diagnosed with PD, 59% were classified with dissocial/anti-social PD, 28% emotionally unstable PD and 10% with both diagnoses. They found a high percentage of co-morbidity with AXIS I disorders and 59% had had one or more admission to hospital.

Lindsay et al (2006), in a study on the same population reported above (70 offenders with ID from a high secure setting, 73 from a medium/low secure setting and 69 from a community forensic setting, took some care to address previous criticisms of PD research in that extensive training of research assistants and clinical informants was conducted, care was taken to ensure inter-rater reliability, and multiple information sources were employed including file reviews, clinical informants, carers and nursing staff. They reported an overall rate of 39% of participants diagnosed as having a PD and given that the three cohorts were

administratively selected for having been referred to offender services for people with ID, they argued that the relatively high rate of diagnosis seemed reasonable. By the far the most common diagnosis in these samples was anti-social PD with participants in the high security setting having a significantly greater rate of diagnosis. Those diagnosed with PD were found to have a significantly higher level of risk for violence, as measured by actuarial measures of risk, from those with no diagnosis of PD. However, those with a PD diagnosis did not differ from those without on actuarial measures of risk of sexual recidivism. Those authors went on to combine PD classifications with PCLR data to construct a simple dimensional system of increasing indications of PD. They found strong relationships between increasing indications of PD and actuarial measures of risk for future violence. Relationships with actuarial measures of sexual risk were significant but less strong.

In a further analysis of their data, Lindsay et al (2007) found that similar factor structures emerged from personality disorder data in this client group as those found in mainstream studies. In an analysis of PD data from xxx participants from high secure hospitals, Blackburn, Logan, Renwick & Donnely (2005) found that two super-ordinate factors emerged representing “acting out” and “anxious-introverted” underlying personality difficulties. These reflected similar super-ordinate factors to emerge from a previous study by Moray (1998) in a study of xxx university students. In a similar confirmatory factor analysis, Lindsay et al (2007) found that two super-ordinate factors emerged representing “acting out” and “anxious/avoidant/inhibited”. These two factors accounted for a similar amount of variance as the Blackburn et al study (38%) and were essentially orthogonal. These findings add weight to the emerging picture that a classification of PD, if used with caution and based on appropriate information, may have similar utility in offenders with ID as it does with mainstream offenders. However, it should be remembered, particularly with reference to this volume on sex offenders, that the relationship between PD and risk for

sexual offending was not as strong as the relationship between PD and risk for violent offending.

Assessment of Dynamic Risk and Offence-related Issues

Thornton (2002) has developed a frame work for the consideration of dynamic risk factors in sex offenders which clearly includes issues that would be considered for offence-related interventions. Dynamic risk factors are more amenable to change through therapeutic intervention and we shall include all of these various factors in this section of the chapter. Thornton (2002) set out four domains, the first of which was social-effective functioning. This refers to the way in which the individual being assessed relates to other people and includes aspects of negative affect such as anger, anxiety, depression and low self-esteem. In relation to sexual incidents, low self-esteem and loneliness have been found to feature prior to incidents of inappropriate or violent sexual behaviour (Beech et al 2002). The second domain related to distorted attitudes and beliefs and there has been considerable interest in relation to cognitive distortions for sex offenders (Ward et al 1998; Ward & Hudson 2000). The third domain, self-management, referred to the individual's current ability to engage in appropriate problem solving, impulse control and a general ability to regulate their own behaviour. Clearly transient deficits in such self-regulation would be relevant to the assessment of increased immediate risk. Self-regulation has also been employed as the fundamental principle grading recent developments in the assessment and treatment for sex offenders (Ward & Hudson 2000, Ward, Hudson & McCormack 1999, Ward 2007, chapter 16 this volume). The fourth domain mentioned in the frame work was offence related sexual preference, split into sexual preference and sexual drive.

Lindsay, Elliot & Astell (2004) reviewed a number of dynamic variables in relation to sex offence recidivism and found that anti-social attitude, low self-esteem, attitudes tolerant of sexual crimes, low treatment motivation, deteriorating treatment compliance and staff

complacency all contributed to the predictive model. The most significant dynamic predictors were anti-social attitude, denial of crime, allowances made by staff and deteriorating compliance. Quinsey, Book & Skilling (2004) conducted a field trial of dynamic indicators with 58 participants. They found that ratings of inappropriate and anti-social behaviour was the best predictor of subsequent inappropriate violent or sexual behaviour. In addition, there were differences between clients who precipitated and those who did not precipitate incidents on the dynamic variables of compliance, dynamic anti-sociality and inappropriate/anti-social behaviour. These two studies attest to the predictive utility of dynamic risk variables and we will now go on to consider variables within each of Thornton's four categories in more detail.

Social-effective Functioning

The personal attribute which emerges most frequently from studies reviewing dynamic variables is that of anti-social and hostile attitude. Hostility and anger in individuals with ID are areas which have attracted a reasonable amount of research when compared with other dynamic risk variables. Novaco & Taylor (2004) sought to evaluate the reliability and validity of anger assessment procedures with 129 male inpatients with ID, most of whom had forensic histories. In this study, specially modified self-report measures of *anger disposition* (Novaco Anger Scale (NAS), Novaco 2003; Spielberger State-Trait Anger Expression Inventory (STAXI), Spielberger 1996), *anger reactivity* (provocation inventory (PI), Novaco (2003), and informant rated *anger attributes* Ward Anger Rating Scale (WARS), Novaco 1994) were investigated with regard to their internal consistency, stability and concurrent and predictive validity. The STAXI and NAS showed substantial intercorrelations, providing evidence for concurrent validity for these instruments. WARS staff ratings for patient anger based on ward observations were found to have high internal consistency and to correlate significantly with patient anger self reports. Anger, self reported by the participants, was

significantly related to their record of assaultive behaviour in hospital. Predictive validity was assessed retrospectively, examining patient assault behaviour in the hospital as predicated by patient rated anger in a hierarchical regression analysis. Controlling for age, length of stay, IQ, violent offence and personality measures, the NAS total score was found to be significantly predictive of whether the patient had physically assaulted others in the hospital and the total number of physical assaults.

In a further development, Taylor, Novaco, Guinan & Street (2004) developed the Imaginal Provocation Test (IPT) as an additional idiographic anger assessment procedure with people with ID that taps key elements of the experience and expression of anger, is sensitive to change associated with anger treatment and is easily modifiable for idiographic uses. The IPT produces four indices relevant to the individual client's experience of anger: anger reaction, behavioural reaction, a composite of anger and behavioural reaction and anger regulation. They administered the IPT to 48 patients prior to beginning an anger treatment and showed that the indices had respectable internal reliabilities. The assessment had reasonable concurrent validity when correlated with the STAXI and NAS. Therefore it would appear that there are rapid, flexible and sensitive idiographic assessments of anger among people with ID and that these assessments have reasonable psychometric properties. Alder & Lindsay (2007) also produced a provocation inventory which is easily accessible and easy to use. A factor analytic study revealed five factors, the first of which was threat to self-esteem. These factors can be considered as basic self-schemer and poor self-esteem as being considered a major dynamic risk factor in sex offenders by several authors (Beech et al 2002, Boer, Tough & Haaven 2004). Therefore the assessment developed by Alder & Lindsay (2007) may provide a quick assessment of threat to self-esteem in this client group.

Although hostile attitude and anger emerge persistently from studies assessing risk for future violent and sexual incidents, it has to be acknowledged that sex offenders with ID tend

to show low levels of anger than other offenders with ID. Lindsay et al (2006) in a study of 247 offenders with ID found that sex offenders showed significantly lower levels of anger and aggression than other male offenders or female offenders. However, where anger is present, it may be a particularly potent dynamic risk factor.

Lindsay et al (2006) also found that sex offenders were recorded as showing lower levels of anxiety than other male offenders or female offenders. A similar finding was also reported by Lindsay & Skene (2007) in a study of a mixed group of 105 people with ID. They found that the sub-group of men who had committed inappropriate sexual behaviour reported lower levels of anxiety and depression on the Beck Anxiety Inventory and the Beck Depression Inventory. Therefore although anxiety and depression may be salient features prior to incidents, they may feature less often in some sub-groups of sex offenders with ID.

Finally, in relation to the all-encompassing domain of social-affective functioning, loneliness has been found to be a feature prior to incidents of inappropriate or violent sexual behaviour for mainstream offenders (Garlic et al 1996). In a recent study, Steptoe et al (2006) reported some interesting findings when they compared a group of 28 sex offenders with ID with 28 members of a control group. Although the sex offender group participants reported the same opportunities for community access and leisure as other participants, they seemed to choose to take advantage of these opportunities less often than control participants. In addition, they appeared to have more impoverished relationships than control participants but reported being quite happy with a more restricted range of relationships. This led to the conclusion that while sex offenders might appear more lonely than other groups of individuals with ID, this may reflect a more self-contained way of life. Lindsay (2005) has stressed the importance of promoting social contact and community identification in sex offenders with ID both from a practical and theoretical standpoint. Such increased social inclusion allows others to monitor the individual sex offender and also ensures that their

views and attitudes are constantly being reviewed and even challenged by ordinary social contact. Steptoe et al (2006) used the Significant Other Scale (Power, Champion & Aris 1988) and the life experience checklist (Ager 1990) both of which were useful in eliciting such information from this client group.

A range of assessments have been developed and adapted to gather reliable and valid information from this client group. These assessments include the NAS, the IPT, the Beck Anxiety Inventory, The Beck Depression Inventory, the Significant Other Scale and the Life Experience Checklist. All of these tests represent a significant beginning in assessing a range of dynamic risk variables relating to the social affective functioning of sex offenders with ID.

Distorted Cognitions and Beliefs

Some work has been completed on knowledge and beliefs in relation to sexual interaction with sex offenders with ID. With this client group it is important not only to review cognitive distortions but also to consider the level of sexual knowledge an individual may have. Indeed, one of the first hypotheses put forward to account for inappropriate sexual behaviour in this group was that lack of sexual knowledge may lead the individual to attempt inappropriate sexual contact precisely because they are unaware of the means to establish appropriate interpersonal and sexual relationships. This hypothesis of "counterfeit deviance" was first mentioned by Hingsburger, Griffiths & Quinsey (1991) and was noted by Luiselli (2000) to be the most influential basis for the development of treatment services for this client group. The term refers to behaviour which is undoubtedly deviant but may be precipitated by factors such as lack of sexual knowledge, poor social and heterosexual skills, limited opportunities to establish sexual relationships and sexual naivety rather than a preference or sexual drive towards inappropriate targets. Therefore mediation should focus on educational issues and developmental maturation rather than inappropriate sexuality.

Griffiths, Quinsey & Hingsburger (1989) gave a number of examples illustrating the concept of counterfeit deviance and developed a treatment programme, part of which was based significantly on sexual and social education.

In a review of variables associated with the perpetration of sexual offences in men with ID, Lindsay (2005) noted that, surprisingly, there are no controlled tests of this hypothesis. This is despite the fact that the notion is relatively easy to test under controlled conditions. Counterfeit deviance would suggest that some men with ID commit sexual offences because they have poorer social-sexual knowledge, do not understand the rules and mores of society and are unaware of taboos relating to sexuality. Therefore, men with ID who have committed sexual offences should have poorer social-sexual knowledge than those who do not. Two sets of authors have thrown some doubt on this as an explanation. Lambrick & Glaser (2004) note that features of poor sexual knowledge and social skills are also found in sex offenders without disability and that this may merely indicate a propensity to be detected rather than to commit offences. They also report experience in their service of a number of such individuals who have excellent social skills and understanding of issues to do with sexuality. A second source of relevant information comes from Griffiths & Lunsky (2007) in their revision of the Social-Sexual Knowledge & Attitudes Assessment Tool (SSKAAT-R). They report reference group scores for sex offenders and controls on each of the sub-scales on the SSKAAT-R. There are no significant differences between the two groups on any sub-scale which clearly does not support a hypothesis which suggests that lack of sexual knowledge is a primary reason for committing inappropriate sexual behaviour.

Sexual knowledge, sexual attitudes and sex education have been the focus of several studies and assessments over the last 25 years. The first assessment of sexual knowledge and attitudes designed for people with ID, and the most widely employed over that period, has been the SSKAAT, originally developed by Wish, McCombs & Edmondson (1979) and

recently updated by Griffiths & Lunsky (2004). Michie, Lindsay, Miller & Grieve (2006) completed a test of counterfeit deviance by comparing the sexual knowledge of groups of sex offenders with ID and control participants using the SSKAAT. In the first study comparing 17 male sex offenders with 20 controls, they found that of 13 sub-scales in the SSKAAT, 3 comparisons, birth control, masturbation and sexually transmitted diseases, showed significant differences between the groups and in each case the sex offenders had higher levels of sexual knowledge. There were no differences between the groups on age or IQ. In a second comparison, 16 sex offenders were compared with 15 controls. There were significant differences between the groups on 7 scales and in each case the sex offenders showed a higher level of sexual knowledge. Michie et al (2006) then pooled the data for all 33 sex offenders and 35 control participants. They found a significant positive correlation between IQ and SSKAAT total score for the control group ($r = 0.71$) but no significant relationship between IQ and SSKAAT total score for the sex offender cohort ($r = 0.17$). They presented two possible reasons for this finding. The first was that, by definition, all of the sex offender cohort have some experience of sexual interaction. It is unlikely that these experiences of sexual interaction are random and one might therefore conclude that these sex offenders have given some thought and attention to sexuality at least in the period prior to the perpetration of the inappropriate sexual behaviour or sexual abuse. Therefore we can be sure that they have at least some experience of sexual activity which is not the case for the control participants. The second possible explanation was that these individuals have a developmental history of increased sexual arousal. This in turn may have led to selective attention and interest in sexual information gained from informal sources. Such persistence of attention would lead to greater retention of information through rehearsal and perhaps to a higher level of associated appropriate sexual activity such as masturbation. These behavioural and informal educational experiences would lead to a higher level of sexual

knowledge. In this latter hypothesis, sexual arousal and sexual preference is hypothesised to have an interactive effect with knowledge acquisition and, perhaps, attitudes and beliefs. From this information it is clear that it is important to assess sexual knowledge in offenders with ID. Talbot and Langdon (2006)……

Although a number of assessments have been developed to assess cognitive distortions in sex offenders, it is generally recognised that the language should be simplified considerably in order to be understood by individuals with ID. Kolton, Boer & Boer (2001) employed the Abel and Becker Cognition Scale with 89 sex offenders with ID (although their degree of cognitive ability was not mentioned). They found that the response options of the test needed to be changed from a 4-choice system (1 = agree, 4 = strongly disagree) to a dichotomous system (agree/disagree) to reduce extremity bias of the sample. The revised assessment provided "adequate" total score to item correlations and test-retest reliability, and internal consistency was "acceptable" (values not reported), and preserved the psychometric and integrity of the assessment. Other tests, such as the Bumby Rape & Molest Scales (1996) have not been used with this client group but have the drawbacks of having contained in their syntax complex concepts, difficult words and complex response choices.

Lindsay, Whitefield & Carson (2006) reported on the development of the Questionnaire on Attitudes Consistent with Sexual Offences (QACSO) which is designed to be suitable for offenders with ID. The QACSO contains a series of scales which evaluates attitudes across a range of different types of offence including rape and attitudes to women, voyeurism, exhibitionism, dating abuse, homosexual assault, offences against children and stalking. They compared 41 sex offenders with ID, 34 non-sexual offenders with ID, 30 non-offenders with ID and 31 non-ID controls who had not committed sexual offences. The Questionnaire has a flesch reading ease score of 88.21 although all items require to be read to participants with ID because few have literacy skills. The assessment was revised following

tests of reliability, discriminant validity and internal consistency in order to ensure that all three psychometric properties were robust. It was found that 6 of the 7 scales on the QACSO were valid and reliable measures of cognitive distortions held by sex offenders with ID (the exception was homosexual assault). Lindsay et al (2005) also found that the rape and offences against children scales in particular discriminated between offenders against adults and offenders against children in the hypothesised direction with offenders against adults having higher scores on the rape scale and lower scores on the offences against children scale than the child molesters. Therefore, it would appear that the cognitive distortions in sex offenders with ID can be assessed with some reliability and validity. However, these authors were cautious when considering the relationship of cognitive distortions to risk. They wrote that changes in attitudes may reflect a number of processes such as suppression, influence by social desirability and even lying. They recommended that the results from the QACSO should be considered in relation to the range of risk assessment variables within the contexts suggested by Thornton (2002).

Self-Management and Self-Regulation

Self-regulation has become germane to the assessment and treatment of sex offenders since the publication of Hudson & Ward (2000) and Hudson, Ward & McCormack (1999) self-regulation pathways in the perpetration of sexual offences and recidivism. The model has had some validation from independent experiments (eg Bickley & Beech 2002) in mainstream offenders and has recently extended to the field of ID. The model itself is clearly explained elsewhere in this volume (chapter xx) and will not be outlined here. Langdon, Maxted & Murphy (2007) in a study of 34 men with a history of inappropriate sexual behaviour, found that the population could be reliably classified using the self-regulation pathways model. There was partial support for the hypothesis that approach offenders with ID would have higher levels of cognitive distortions, less victim empathy and a history of

engaging in more prolific offending behaviour. Passive offenders were found to have lower levels of general intellectual functioning and poorer sexual knowledge. In their study, 82% of the sample were classified as having approach goals with only 18% avoidant.

While there is some developing evidence that the self-regulation model may be applicable to sex offenders with ID, the Thornton (2002) domain refers predominantly to deficits in self-regulation and ability to engage in appropriate problem solving strategies and impulse control. The developing field of social problem solving (McMurran, Duggan, xxx 2002) has not spread to the field of offenders with ID. The work that does exist is generally related to problem solving skills with respect to self-regulation of anger. The NAS has sections on the cognitive, behavioural and physiological self-regulation of the emotion of anger and the results from the work of Novaco & Taylor (2003) has already been discussed above.

Impulsivity is an interesting personal characteristic which is often cited in relation to sex offenders in general and also sex offenders with ID. Ward & Hudson (1998) in their elucidation of the offence pathways of mainstream sex offenders have clarified some issues on impulsivity. In their theoretical account, which as noted above has been subsequently validated through independent research studies, not all pathways rely on impulsive reactions from the sex offender. Indeed, one of the main pathways, approach/explicit, that does not invoke impulsivity at all and the extent to which it is incorporated into other pathways is variable. For example, if an offender employs an approach/automatic pathway in which they engage in routine high-risk behaviours without the explicit intention to offend, one could argue that they are arranging their routines in order to maximise the probability of offending opportunities. In this way, the impulsivity would not appear to play a significant part in the offence cycle. Indeed, several authors (Naussbaum, et al 2002, Plutchick and Van Pragg

1995) have conducted studies in which it appeared that sex offenders were less impulsive than other types of offenders when the personality traits were measured systematically.

Having said that, Glaser & Deane (1999) hypothesised that impulsivity was involved in a range of offending in men with ID. They compared 19 sex offenders with 23 other types of offenders and found very few differences between the two cohorts. As a result, they felt that impulsivity may be involved in both types of offending rather than feature in one or the other. Parry & Lindsay (2003) compared 22 sex offenders with 6 non-offenders and 13 other types of offenders using the Barratt Impulsiveness Scale adapted to suit the client group. They found that the sex offenders reported lower levels of impulsiveness than other types of offenders. However, they felt that there may be sub-groups of clients with ID who do indeed have higher levels of disinhibition and impulsivity and that this should be incorporated into assessment and treatment considerations.

There is very little work on social problem solving and offenders with ID. One of the main social problem solving inventories, the Social Problem Solving Inventory – Revised (D'Zurialla, Nezu & Maydeu-Olivares 2000) although used widely in mainstream offenders (McMurran et al 2001) has seldom been used in offenders with ID. Hamilton, Doyle & Lindsay (2006) have piloted the use of the SPSI with this client group and have found that if it is suitably modified, it can be used reliably. In addition, they conducted a preliminary factor analysis on the 25 items and found a fairly logical and reasonably simple factor structure which incorporated the original development of the test. The SPSI consists of 25 items which provide 5 problem solving styles: positive orientation, negative orientation, impulsive problem solving style, rational problem solving style and avoidant problem solving style. In their pilot study, Hamilton et al (2006) found that three factors emerged accounting for 63% of the variance: negative/avoidant style, positive/rational style and impulsive problem solving style. Therefore there are some preliminary indications that it may be

possible to assess problem solving style of sexual offenders using a suitably adapted established assessment.

Sexual Preference and Sexual Drive

The hypothesis of counterfeit deviance has already been discussed above and has been the most prevalent theoretical model in the development of sex offender treatment in the field of ID. However, in mainstream sex offender work, inappropriate sexual preference and sexual drive have been suggested as primary motivation by several authors (Blanchard, Watson, Choy, Dickey, Klassen & Kuban 1999, Harris et al 2003). Although some of this work is beginning to extend to men with lower intellectual functioning, perhaps the main inferences can be drawn from studies which have noted previous sexual offending and patterns of offending in cohorts of referred clients. Day (1994) reported in a study of 31 sexual offenders referred to his clinic, that all of them had previous recorded incidents of inappropriate sexual behaviour or sexual offences. On the other hand, Glaser & Deane (1999) found no differences between the number of previous sex offences in their cohorts of sex offenders and non-sex offenders with ID. Lindsay et al (2002) found that for 62% of referrals there was either a previous conviction for a sexual offence or clear documented evidence of sexual abuse having been perpetrated by the individual. When one considers that any incidents of sexual abuse is typically met with a great deal of criticism towards the offending individual on the part of his victim's family or his care givers, which would be a considerable disincentive to the further commission of additional sexual offences, then one must conclude that sexual drive and sexual preference are likely to be significant factors.

Two important studies, although not directly relevant, can inform on this issue. Blanchard et al (1999) investigated patterns of sexual offending in 950 participants. They found that sex offenders with intellectual disabilities were more likely to commit offences against younger children and male children. Although the proportion of variance is not high,

this information, coming as it does from a well conducted series of studies, constitutes evidence that inappropriate sexual preference plays at least some role in this client group. They also reported that their results suggest that choices of male or female victims by offenders with ID were not primarily determined by accessibility (or other circumstantial factors) but, rather, by their relative sexual interest in male and female children. Cantor, Blanchard, Robichaud & Christensen (2005) have recently published a detailed meta-analytic study of previous reports which have included reliable data on IQ and sexual offending. In a re-analysis of data on 25,146 sex offenders and controls, they found a robust relationship between lower IQ and sexual offending but specifically, lower IQ and paedophilia. They hypothesised that "a third variable – a perturbation of prenatal or childhood brain development – produces both paedophilia and low IQ" (p 565). They go on to accept that psycho-social influences are likely to be important but incomplete in explaining paedophilia, emphasising the importance of investigating the range of hypotheses presented for the genesis of sexual offending. However, this information on the relationship between intellectual ability and sexual preference, coming as it does from a highly reliable research group, presents more persuasive evidence than the essentially anecdotal accounts of previous authors (eg Day 1994, Lindsay et al 2004). Therefore sexual drive and sexual preference are likely to be important components within any treatment programme and Lindsay (2005) has argued that self-regulation and self-control of any inappropriate sexual drive or preference is an essential aspect of any treatment programme. Treatment issues directed at these aspects of personal sexual preference are outlined in chapter xx.

Conclusion

In this chapter we have reviewed the current state of literature on assessment of risk in sex offenders with ID. Our knowledge on static risk factors has begun to develop considerably and there have now been two studies on the capability of existing risk

assessments to this client group. Both studies (Quinsey, Book & Skilling 2004, Lindsay et al 2006) have found predictive results that are broadly consistent with the literature on mainstream offending for the VRAG and Static-99. Results on the RM-2000 were somewhat poorer but the authors urged further research work since this particular assessment has wide applicability and accessibility. The Static-99 in particular appeared relevant for use with sex offenders with ID since Harris & Tough (2004) reported that its predecessor the RRASOR was used effectively in treatment services for this client group in the Toronto area. Therefore there are some positive results regarding assessment of static/actuarial risk.

We have considered dynamic risk variables in accordance with the Thornton (2002) classification of social/affective, cognitive and attitudinal, self-regulation and sexual preference/drive. These are the issues which would be targeted for treatment in relevant services and because of this, there is a reasonably rich literature upon which to draw. A few studies have been conducted which confirm the relevance of these dynamic risk variables in the prediction of incidents for this client group. A number of studies have demonstrated the reliability and validity of assessments for use with these clients on these relevant variables. Notably they include assessments of hostility, emotional instability, personal relationships, cognitive distortions that might be considered supportive of sexual offences, and self-regulation. Two important studies (Blanchard et al 1999, Cantor et al 2005) also attest to the importance of considering self-regulation of sexual preference drive during treatment. The field of sex offenders with intellectual disability has been making some reasonable progress over the last 15 years and we are now at the point where treatment services are becoming more effective and we can have more confidence in the reliability and validity of assessments to monitor the progress of treatment. It is to be hoped that the next 15 years will witness researchers continuing to develop the field.

References

Ager, A. (1990). *The Life Experience Checklist.* Kidderminster: British Institute of Learning Disabilities.

Alder, L., & Lindsay, W.R. (2007). Exploratory factor analysis and convergent validity of the Dundee Provocation Inventory. *Journal of Intellectual & Developmental Disabilities, submitted.*

Alexander, R., & Cooray, S. (2003). Diagnosis of personality disorders in learning disability. *British Journal of Psychiatry, 182 (Suppl. 44),* S28-S31.

Barbaree, H.E., Seto, M.C., Langton, C.M., & Peacock, E.J. (2001). Evaluating the predictive accuracy of six risk assessment instruments for adult sex offenders. *Criminal Justice & Behaviour, 28,* 490-521.

Bartosh, D.L., Garby, T., Lewis, D., & Gray, S. (2003). Differences in the predictive validity of actuarial risk assessments in relation to sex offender type. *International Journal of Offender Therapy & Comparative Criminology, 47,* 422-438.

Beech, A., Friendship, C., Erikson, M., & Hanson, R.K. (2002). The relationship between static and dynamic risk factors and reconviction in a sample of UK child abusers. *Sexual Abuse: A Journal of Research & Treatment, 14,* 155-167.

Bickley, J.A., & Beech, A.R. (2002). An investigation of the Ward and Hudson pathways model of the sexual offence process with child abusers. *Journal of Interpersonal Violence, 17,* 371-393.

Blackburn, R., Logan, C., Renwick, S.J.D., & Donnelly, J.P. (2005). Higher order dimensions of personality disorder: Hierarchical structure and relationships with the five factor model, the interpersonal circle and psychopathy. *Journal of Personality Disorders, 19,* 597-623.

Blanchard, R., Watson, M., Choy, A., Dickey, R., Klassen, P., Kuban, N., & Feren, D.J. (1999). Paedophiles: Mental retardation, mental age and sexual orientation. *Archives of Sexual Behaviour, 28,* 111-127.

Boer, D.P., Tough, S., & Haaven, J. (2004). Assessment of risk manageability of developmentally disabled sex offenders. *Journal of Applied Research in Intellectual Disabilities, 17,* 275-284.

Bumby, K.M. (1996). Assessing the cognitive distortions of child molesters and rapists: Development and validation of the MOLEST and RAPE scales. *Sexual Abuse: A Journal of Research & Treatment, 8,* 37-54.

Cantor, J.M., Blanchard, R., Robichaud, L.K., & Christensen, B.K. (2005). Quantitative reanalysis of aggregate data on IQ in sexual offenders. *Psychological Bulletin, 131,* 555-568.

Day, K. (1994). Male mentally handicapped sex offenders. *British Journal of Psychiatry, 165,* 630-639.

D'Zurilla, T.J, .Nezu, A.M., & Maydeu-Olivares, A. (2000). *Manual for the Social Problem Solving Inventory – Revised.* North Tonawanda, NY: Multi-Health Systems.

Fazel, S., & Danesh, J. (2002). Serious mental disorder among 23,000 prisoners: Systematic review of 62 surveys. *Lancet, 16,* 545-550.

Garlick, Y., Marshall, W.L., & Thornton, D. (1996). Intimacy deficits and attribution of blame among sex offenders. *Legal & Criminological Psychology, 1,* 251-258.

Glaser, W., & Deane, K. (1999). Normalisation in an abnormal world: A study of prisoners with intellectual disability. *International Journal of Offender Therapy & Comparative Criminology, 43,* 338-350.

Grettan, H.M., McBride, M., Hare, R.D., O'Shaughensey, R.O., & Kumka, G. (2001). Psychopathy and recidivism in adolescent sex offenders. *Criminal Justice & Behaviour, 28,* 427-449.

Griffiths, D., & Lunsky, Y. (2003). *Sociosexual Knowledge and Attitudes Assessment Tool – Revised (SSKAAT-R).* Wood Dale, Illinois: Stoelting Company.

Griffiths, D.M., Lunsky, Y., Watson, S.L., Frijters, J., & Williston, S. (2007). Sexual knowledge and attitudes of men with intellectual disabilities who sexually offend. *Journal of Intellectual & Developmental Disabilities, submitted.*

Hamilton, C., Doyle, M.C., Lindsay, W.R., & Goodall, J. (2006). Adaptation and psychometric evaluation of the Social Problem Solving Inventory – Revised (SPSI-R). *Journal of Applied Research in Intellectual Disabilities,* 258.

Hanson, R.K. (1997). *The development of a brief actuarial risk scale for sexual offence recidivism.* (User report 1997-04). Ottowa: Department of the Solicitor General of Canada.

Hanson, R.K., & Thornton, D. (1999). *Static-99: Improving actuarial risk assessments for sex offenders.* (User report 1999-02). Ottowa: Department of the Solicitor General of Canada.

Hare, R.D. (1991). *The Hare Psychopathy Checklist – revised.* Toronto, Ontario: Multi Health Systems.

Harris, A.J.R., & Tough, S. (2004). Should actuarial risk assessments be used with sex offenders who are intellectually disabled. *Journal of Applied Research in Intellectual Disabilities, 17,* 235-242.

Harris, G.T., Rice, M.E., Quinsey, V.L., Lalumiére, M.L., Boer, D., & Lang, C. (2003). A multi-site comparison of actuarial risk instruments for sex offenders. *Psychological Assessment, 15,* 413-425.

Hayes, S.C. (2000). *Hayes Ability Screening Index (HASI) Manual.* University of Sydney, Sydney: Behavioural Sciences in Medicine.

Hayes, S.C. (2002). Early intervention or early incarceration? Using a screening test for intellectual disability in the criminal justice system. *Journal of Applied Research in Intellectual Disability, 15,* 120-128.

Hill, C.D., Neumann, C.S., & Rogers, R. (2004). Confirmatory factor analysis of the Psychopathy Checklist: Screening version in offenders with Axis-I disorders. *Psychological Assessment, 16,* 90-95.

Hingsburger, D., Griffiths, D., & Quinsey, V. (1991). Detecting counterfeit deviance: Differentiating sexual deviance from sexual inappropriateness. *Habilitation Mental Health Care Newsletter, 10,* 51-54.

Holland, A.J. (2004). Criminal behaviour and developmental disability: An epidemiological perspective. In W.R. Lindsay, J.L. Taylor & P. Sturmey (Eds.), *Offenders with developmental disabilities* (pp. 23-34). Chichester: John Wiley.

Hudson, S.M., Ward, T., & McCormack, J.C. (1999). Offence pathways in sexual offenders. *Journal of Interpersonal Violence, 14,* 779-798.

Kolton, D.J.C., Boer, A., & Boer, D.P. (2001). A revision of the Abel and Becker Cognition Scale for intellectually disabled sex offenders. *Sexual Abuse: A Journal of Research & Treatment, 13,* 217-219.

Lambrick, F., & Glaser, W. (2004). Sex offenders with an intellectual disability. *Sexual Abuse: A Journal of Research & Treatment, 16,* 381-392.

Langdon, P.E., Maxted, H., & Murphy, G.H. (2007). An evaluation of the Ward and Hudson Offending Pathways Model with sex offenders who have intellectual disabilities. *Journal of Intellectual & Developmental Disabilities, submitted.*

Lindsay, W.R. (2002). Research and literature on sex offenders with intellectual and developmental disabilities. *Journal of Intellectual Disability Research, 46,* (Suppl. 1), 74-85.

Lindsay, W.R. (2005). A model underpinning treatment for sex offenders with intellectual disability: Developments on current theories of sex offending. *Mental Retardation, 43,* 428-441.

Lindsay, W.R., & Beail, N. (2004). Risk assessment: Actuarial prediction and clinical judgement of offending incidents and behaviour for intellectual disability services. *Journal of Applied Research in Intellectual Disabilities, 17,* 229-234.

Lindsay, W.R., Elliot, S.F., & Astell, A. (2004). Predictors of sexual offence recidivism in offenders with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities, 17,* 299-305.

Lindsay, W.R., Hogue, T., Taylor, J.L., Mooney, P., Steptoe, L., Johnston, S., O'Brien, G., & Smith, A.H.W. (2006b). Two studies on the prevalence and validity of personality disorder in three forensic intellectual disability samples. *Journal of Forensic Psychiatry & Psychology, 17,* 485-506.

Lindsay, W.R., Hogue, T., Taylor, J.L., Steptoe, L., Mooney, P., O'Brien, G., Johnston, S., & Smith, A.H.W. (2006a). Risk assessment in offenders with intellectual disability: A comparison across three levels of security. *Journal of Offender Therapy & Comparative Criminology, in press.*

Lindsay, W.R., Michie, A.M., Whitefield, E., Martin, V., Grieve, A., & Carson, D. (2006d). Response patterns on the Questionnaire on Attitudes Consistent with Sexual Offending in groups of sex offenders with intellectual disability. *Journal of Applied Research in Intellectual Disabilities, 19,* xx-xx.

Lindsay, W.R., & Skene, D. (2007). . *Journal of Applied Research in Intellectual Disabilities, 20, in press.*

Lindsay, W.R., Smith, A.H.W., Law, J., Quinn, K., Anderson, A., Smith, A., & Allan, R. (2004). Sexual and non-sexual offenders with intellectual and learning disabilities: A comparison of characteristics, referral patterns and outcome. *Journal of Interpersonal Violence, 19,* 875-890.

Lindsay, W.R., Smith, A.H.W., Law, J., Quinn, K., Anderson, A., Smith, A., Overend, T., & Allan, R. (2002). A treatment service for sex offenders and abusers with intellectual disability: Characteristics of referrals and evaluation. *Journal of Applied Research in Intellectual Disability, 15,* 166-174.

Lindsay, W.R., Steele, L., Smith, A.H.W., Quinn, K., & Allan, R. (2006c). A community forensic intellectual disability service: Twelve year follow-up of referrals, analysis of referral patterns and assessment of harm reduction. *Legal & Criminological Psychology, 11,* 113-130

Lindsay, W.R., Steptoe, L., Hogue, T.E., Taylor, J.L., Mooney, P., Haut, F., Johnston, S., & O'Brien, G. (2007). Internal consistency and factor structure of personality disorders in a forensic intellectual disability sample. *Journal of Intellectual and Developmental Disabilities, submitted.*

Lindsay, W.R., Whitefield, E., & Carson, D. (2007). The development of a questionnaire to measure cognitive distortions in sex offenders with intellectual disability. *Legal & Criminological Psychology, in press.*

Luiselli, J.K. (200). Presentation of paraphilias and paraphilia related disorders in young adults with mental retardation: Two case profiles. *Mental Health Aspects of Developmental Disabilities, 3,* 42-46.

MacMillan, D., Hastings, R., & Caldwell, J. (2004). Clinical and actuarial prediction of physical violence in a forensic intellectual disability hospital: A longitudinal study. *Journal of Applied Research in Intellectual Disabilities, 17,* 255-266.

McMurran, M., Fyffe, S., McCarthy, L., Duggan, C., & Latham, A. (2001). Stop and think!: Social problem solving therapy with personality disordered offenders. *Criminal Behaviour & Mental Health, 11,* 273-285.

Michie, A.M., Lindsay, W.R., Martin, V., & Grieve, A. (2006). A test of counterfeit deviance: A comparison of sexual knowledge in groups of sex offenders with intellectual disability and controls. *Sexual Abuse: A Journal of Research & Treatment, 18,* xx-xx

Morey, L.C. (1988). The categorical representation of personality disorder: A cluster analysis of DSMIII-R personality features. *Journal of Abnormal Psychology, 97,* 314-321.

Naik, B.I., Gangadharan, S.K., & Alexander, R.T. (2002). Personality disorders in learning disability – the clinical experience. *British Journal of Developmental Disabilities, 48,* 95-100.

Noble , J.H., & Conley, R.W. (1992). Toward an epidemiology of relevant attributes. In R.W. Conley, R. Luckasson & G. Bouthilet (Eds). *The criminal justice system and mental retardation* (pp. 17-54). Baltimore: Paul Brookes Publishing.

Novaco, R.W. (1994). Anger as a risk factor for violence among the mentally disordered. In J. Monahan & H.J. Steadman (Eds), *Violence in mental disorder: Developments in risk assessment.* Chicago: University of Chicago Press.

Novaco, R.W. (2003). *The Novaco Anger Scale and Provocation Inventory Manual (NAS-PI).* Los Angeles: Western Psychological Services.

Novaco, R.W., & Taylor, J.L. (2004). Assessment of anger and aggression in offenders with developmental disabilities. *Psychological Assessment, 16,* 42-50.

Nussbaum, D., Collins, M., Cutler, J., Zimmerman, W., Farguson, B., & Jacques, I. (2002). Crime type and specific personality indices: Cloniger's TCI impulsivity, empathy and attachment subscales in non-violent, violent and sexual offenders. *American Journal of Forensic Psychology, 20,* 23-56.

Parry, C., & Lindsay, W.R. (2003). Impulsiveness as a factor in sexual offending by people with mild intellectual disability. *Journal of Intellectual Disability Research, 47,* 483-487.

Plutchick, R & Van Pragg (1995) The nature of impulsivity: Definitions, ontology, genetics and relations to aggression. *In E. Holldander & D, Stein (eds) Impulsivity and aggression* (pp13-27). Chichester: John Wiley & Sons.

Power, M., Champion, L., & Aris, S.J. (1998). The development of a measure of social support: The Significant Others Scale (SOS). *British Journal of Clinical Psychology, 27,* 349-358.

Quinsey, V.L., Book, A., & Skilling, T.A. (2004). A follow-up of deinstitutionalised men with intellectual disabilities and histories of antisocial behaviour. *Journal of Applied Research in Intellectual Disabilities, 17,* 243-254.

Quinsey, V.L., Harris, G.T., Rice, M.E., & Cormier, C.A. (2005). *Violent offenders, appraisal and managing risk: second edition.* Washington DC: American Psychological Association.

Sjostedt, G., & Langstrom, N. (2002). Assessment of risk for criminal recidivism among rapists: A comparison of four different measures. *Psychology, Crime & Law, 8,* 25-40.

Steptoe, L., Lindsay, W.R., Forrest, D., & Power, M. (2006). Quality of life and relationships in sex offenders with intellectual disability. *Journal of Intellectual & Developmental Disabilities, 31,* 13-19.

Spielberger, C.D. (1996). *State-Trait Anger Expression Inventory Professional Manual.* Florida: Psychological Assessment Resources, inc.

Talbot and Langdon (2006)……s

Taylor, J.L., Novaco, R.W., Guinan, C., & Street, N. (2004). Development of an imaginal provocation test to evaluate treatment for anger problems in people with intellectual disabilities. *Clinical Psychology & Psychotherapy, in press.*

Thornton, D. (2002). Constructing and testing a framework for dynamic risk assessment. *Sexual Abuse: A Journal of Research & Treatment, 14,* 139-153.

Thornton, D., Mann, R., Webster, S., Blud, L., Travers, R., Friendship, C., & Erikson, M. (2003). Distinguishing and combining risks for sexual and violent recidivism. *Annals of the New York Academy of Sciences, 989,* 225-235.

Ward, T., & Hudson, S.M. (1998). A model of the relapse process in sexual offenders. *Journal of Interpersonal Violence, 13,* 700-725.

Ward, T., & Hudson, S.M. (2000). A self-regulation model of the relapse prevention process. In D.R. Laws, S.M. Hudson & T. Wards (Eds.), *Remaking relapse prevention with sex offenders: A source book* (pp. 79-101). Thousand Oaks, CA: Sage.

Ward, T., Hudson, S.M., Johnston, L., & Marshall, W.L. (1997). Cognitive distortions in sex offenders: An integrative review. *Clinical Psychology Review, 17,* 479-507.

Wish, J.R., McCombs, K.F., & Edmonson, B. (1979). *The socio-sexual knowledge and attitudes test.* Wood Dale, IL: Stoelting Company.